BOSCH

WZ45N Integrated Day/Night IR Dome

INSTRUCTION MANUAL

Before installing and using the camera, please read this
manual carefully. Be sure to keep it handy for later reference.

Important Safety Instructions

1. Read these instructions.
2. Keep this instruction.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean inside only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with manufacturer instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the power where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in a way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

FCC Note

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. As part of its' normal operation this device can generate radio frequency energy and if not installed and used in accordance with the installation manual may cause interference to radio communications. However, there is no guarantee that interference will not occur on a particular installation. If the device does cause interference to radio or television reception the user is encouraged to try to correct the interference by one or more of the following measures:

1) Fit Ferrite beads on all cable to and from the power
   supply box, within the box walls.

2) Route the composite cable between the camera and the power supply in steel conduit piping over the entire run of the cable up to and including connection to a deep conduit base fitted under the camera and a conduit fitting adaptor in the wall of the PSU box.

3) Contact a BOSCH Service Center for further advice.

CE Note

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to EU Standard EN55022. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures

Precautions

• Do not modify
• Do not put objects inside the unit. Make sure that no metal objects or flammable substances enter the camera. This may cause fire, short-circuits and other damages.
• Be careful when handling the unit. To prevent damage, do not drop the camera or subject it to strong shock or vibration.
• Install the camera away from electric or magnetic fields.
• Protect the camera from humidity and dust.
• Do not subject the unit to high temperature. Be careful when installing close to ceilings, in a kitchen or a boiler room as heat rises and will affect the camera.
• Dirt can be removed from the exterior of the camera by wiping it with a clean soft moistened cloth and soft detergent solution.
• The mounting surface material must be strong enough to secure the camera.

TROUBLESHOOTING

Before sending the camera out for repair, check the items below. If the problem persists after checking these items, contact your service center.

■ If no image appears.

Is the coaxial cable attached securely?
Are the power and voltage normal?
Has the exposure/iris of the camera been
adjusted correctly (within the OSD menu) ?
Is there adequate illumination?

■ If the image is unclear

Is the lens in focus?
Is the lens dirty?
Dirt of fingerprints on the lens can adversely affect the
images. Gently wipe any dirt or fingerprints off the lens
with a soft cloth or lens cleaning paper and cleaning
fluid (commercially available).
Is the monitor adjusted correctly?

WARNING:
TO PREVENT THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR
MOISTURE.

Customer Support and Service

If this unit needs service, contact the nearest Bosch Security Systems Service Center for authorization to return and shipping instructions.

Service Centers
USA
– **Repair Center**
    – Telephone: 800-366-2283
    – Fax: 800-366-1329
    – E-mail: repair@us.bosch.com
– **Customer Service**
    – Telephone: 888-289-0096
    – Fax: 585-223-9180
    – E-mail: security.sales@us.bosch.com
– **Technical Support**
    – Telephone: 800-326-1450
    – Fax: 585-223-3508 or 717-735-6560
    – E-mail: technical.support@us.bosch.com

Canada
    – Telephone: 514-738-2434
    – Fax: 514-738-8480

Europe, Middle East, Africa Region
– **Repair Center**
    – Telephone: 31 (0) 76-5721500
    – Fax: 31 (0) 76-5721413
    – E-mail: RMADesk.STService@nl.bosch.com

Asia Region
– **Repair Center**
    – Telephone: 65 63522776
    – Fax: 65 63521776
    – E-mail: rmahelpdesk@sg.bosch.com
– **Customer Service**
    – Telephone: 86 (0) 756 7633117 or 86 (0) 756 7633121
    – Fax: 86 (0) 756 7631710
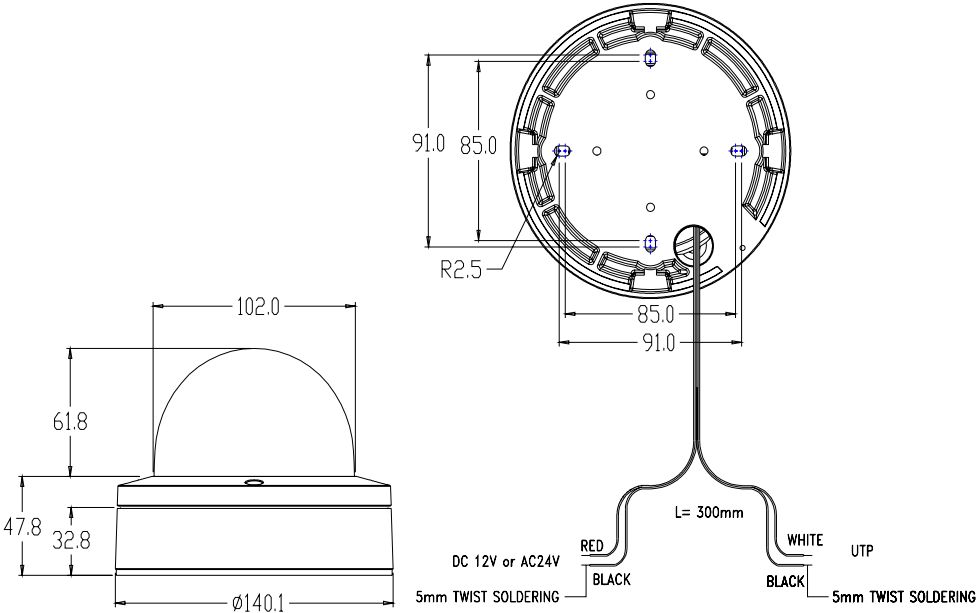   – E-mail: customer.service@cn.bosch.com

Warranty and more information
For additional information and warranty queries, please contact your Bosch Security Systems representative or visit our Web site at www.boschsecurity.com.
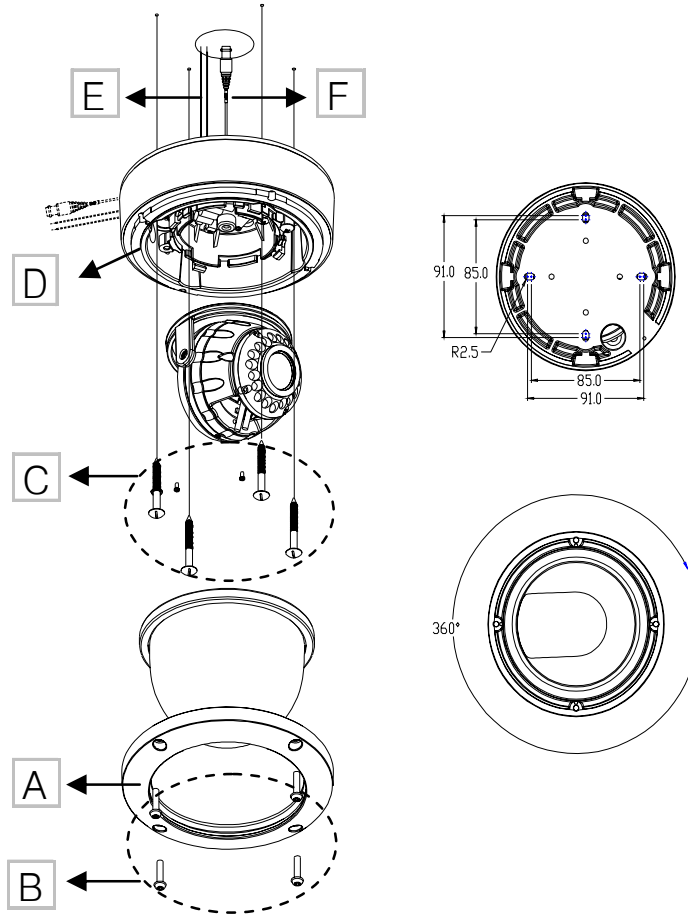
DIMENSIONS (mm)

102.0

61.8

47.8 32.8

Ø140.1

91.0 85.0

R2.5

85.0

91.0

VIDEO(yellow)

BNC JACK

L= 300mm

DC 12V or AC24V

RED

BLACK

5mm TWIST SOLDERING

*UTP OUTPUT

102.0

61.8

47.8
32.8

Ø140.1

91.0 85.0

R2.5

85.0

91.0

L= 300mm

DC 12V or AC24V

RED

BLACK

5mm TWIST SOLDERING

WHITE

BLACK

UTP

5mm TWIST SOLDERING
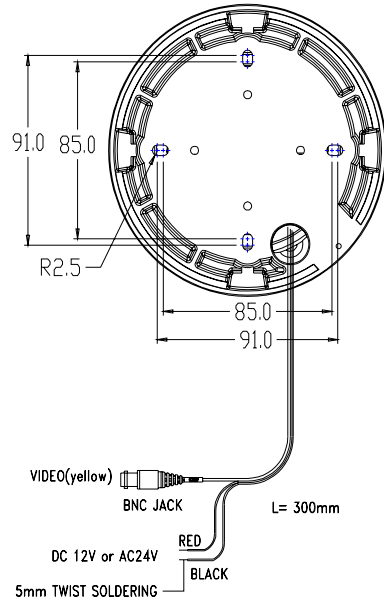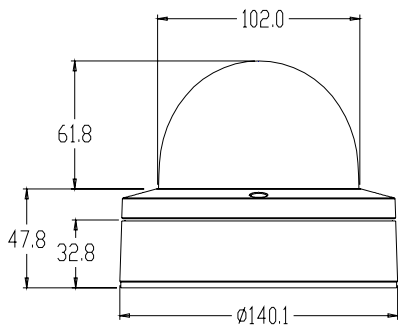
INSTALLATION

*UTP OUTPUT

E

D

C

A

B

91.0 85.0

R2.5

85.0

91.0

360°
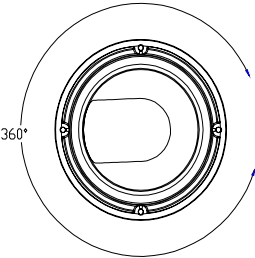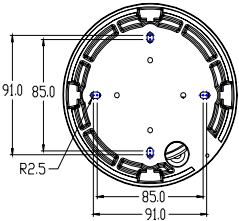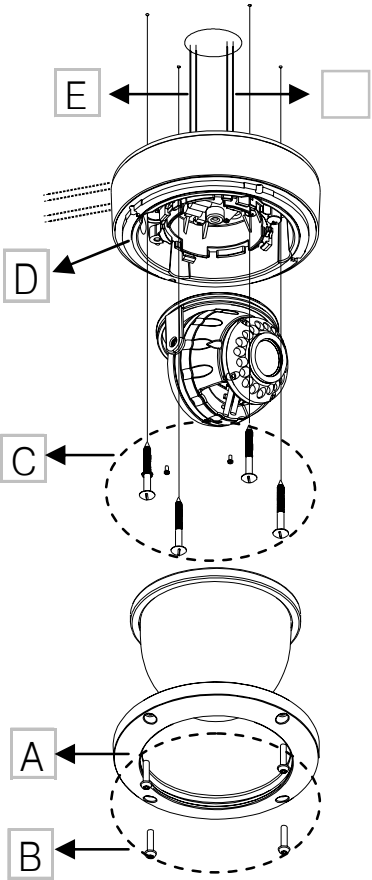
INSTALLATION

1 Use the supplied security tool to remove the four
  fixing screws (B) of dome ring (A).

2 Align the supplied mounting template with the surface to be
  mounted to, make marks on the surface in the places
  where the screw holes and cable hole are to be located.

3 Drill holes for the screws and cable hole in the surface
  1inch (25mm) in diameter, for routing the cables.
  Alternatively the cables can pass through the side entry
  via the 1/2 inch NPT cable entry, ensure unit is
  appropriately sealed with any method used.

4 Pass the power cable (E) and video cable (F) or
  UTP cable (*F) from the camera unit through
  the cable hole in the surface or out the side entry.

5 Align the four screw holes in the camera unit (D) with
  the screw holes on the mounting surface, and then secure
  the camera in place by fastening the four screws (C)
  through the camera unit into the surface.

6 Carry out the settings and adjustments for the camera as
  covered in the next sections.

7 Secure the dome ring (A) by tightening the screws (B) into
  the camera unit (D). Ensure the rubber ring between the
  lens and the dome cover is in place and forms a tight seal
  against the inside of the dome.
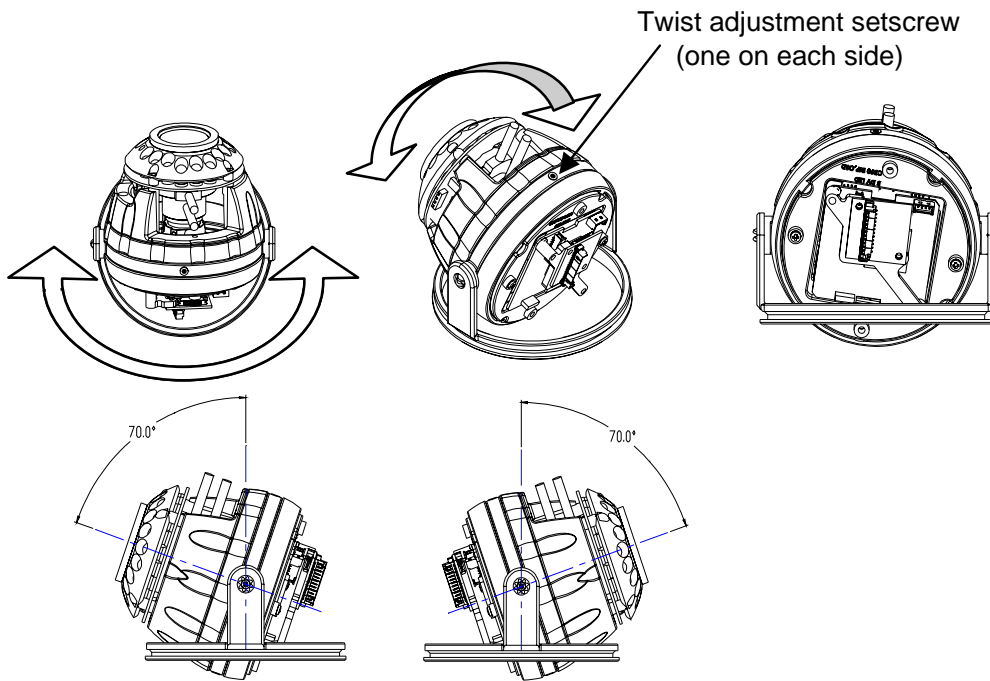
CONNECTIONS AND CAMERA SETTINGS

■ CONNECTIONS

DC12V / AC24V

*UTP OUTPUT

UTP
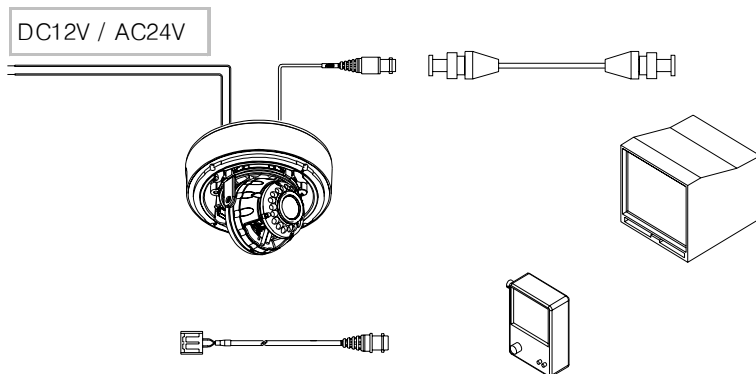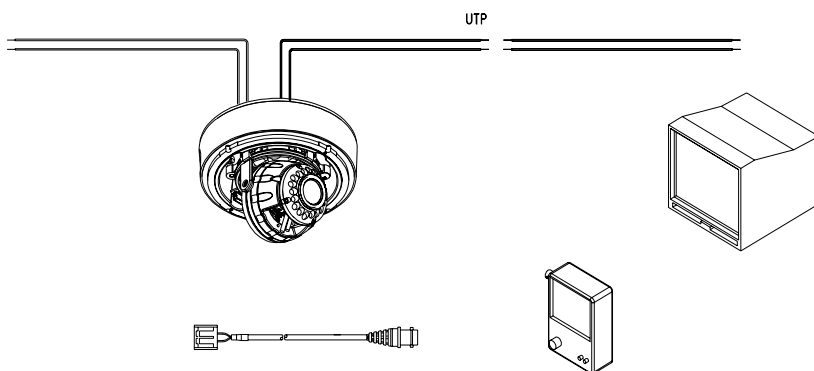
CAUTION :
Check for polarity when using a DC 12V power supply.

■ LENS ADJUSTMENTS

Twist adjustment setscrew
(one on each side)

70.0°　　　　　　70.0°

1. Adjust the pan (360˚) and tilt (70˚) position.
2. Adjust the twist position by loosening setscrews with supplied allen key and twist the camera module.
3. Set the zoom position by using the zoom thumb screw.
4. Set the focus by using the focus thumb screw.

■ CAMERA OPERATION

MENU

1. EXPOSURE	5. MOTION
LENS 　　　MANUAL/DC E. SHUTTER 　　　AUTO~1/100000 BLC AGC 　　　OFF~36dB	ALRAM
2. COLOR	**6. PRIVACY**
WB MODE 　　AWC 　　ATW 　　MANUAL 　　PUSH LOCK	MASK 1 MASK 2 MASK 3 MASK 4 COLOR SET
3. DAY&NIGHT	**7. SETUP**
D&N MODE 　　AUTO 　　COLOR 　　B/W 　　EX-CONT	CAMERA ID TITLE EDIT TITLE RESET TITLE POSITION DPC SET LANGUAGE PC CONT.
4. FUNCTION	**8. EXIT**
MIRROR SHARPNESS GAMMA SLC HME DRC	EXIT SAVE & EXIT FACTORY SET

■ CAMERA OPERATION

Accessibility

2ND VIDEO

JOY KEY
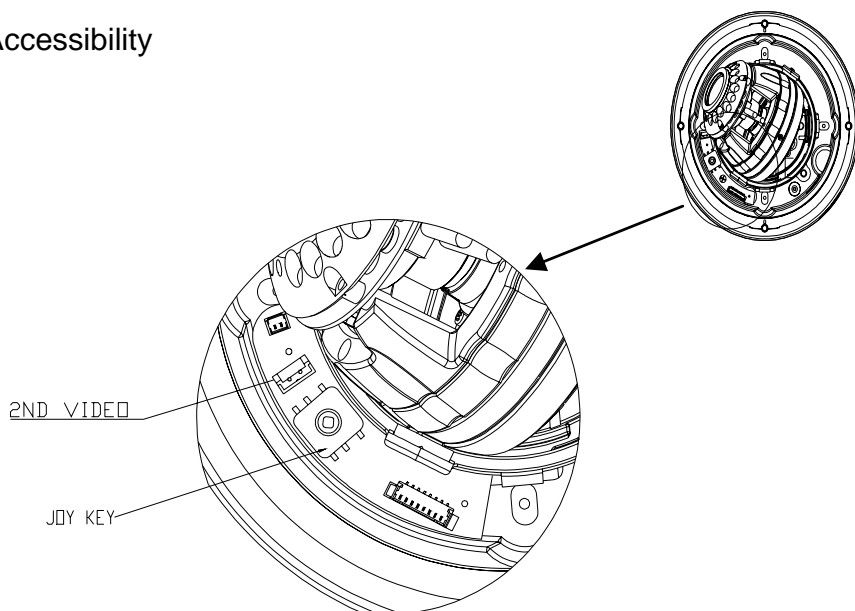
*UTP OUTPUT
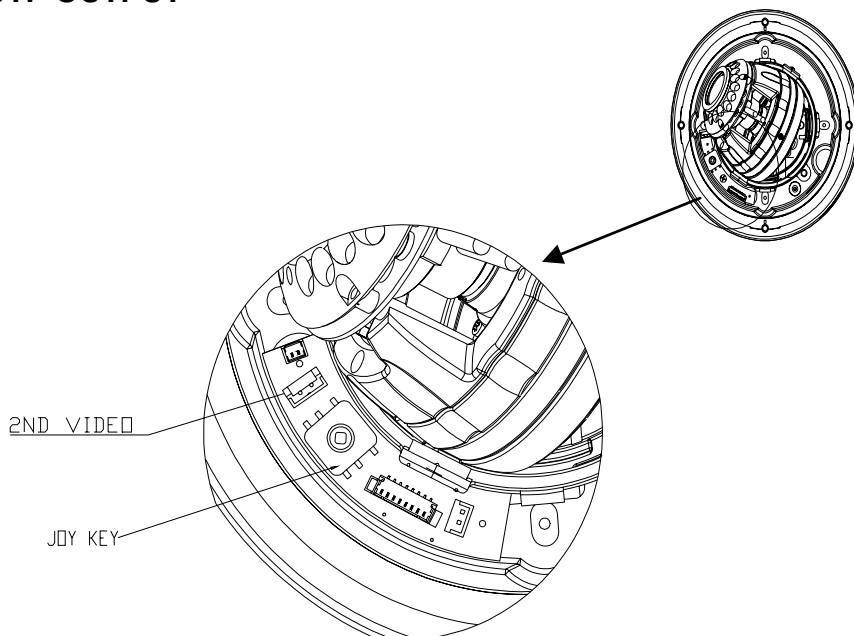
2ND VIDEO

JOY KEY

Joystick (JOY KEY)
To access the OSD menu system press the joystick in, to navigate
through the menus push the joystick to the appropriate side.

Second video out connector (2ND VIDEO)
To verify correct view angle and change settings using a portable
monitor, this connector can be utilized with the supplied adapter
cable.

■ CAMERA OPERATION

EXPOSURE - LENS
Select the type of lens (MANUAL / DC)

 MANUAL : Select for manual iris control. The brightness of the screen
is adjustable by ELC level.

DC : Select for automatic iris control. The offset brightness of the
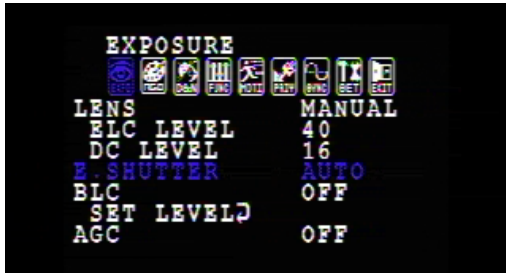screen is adjustable by DC level.

■ CAMERA OPERATION

EXPOSURE - E.SHUTTER
This mode is selectable to either Auto or Fixed control for the electronic shutter.

AUTO : Set for complete automatic operation of the electronic shutter, only available when lens iris control is set to Manual.

FIXED : Set to desired minimum shutter speed, 10 levels available.
1/50s(PAL),1/60s(NTSC),1/100s,1/250s,1/500s,1/1000s,
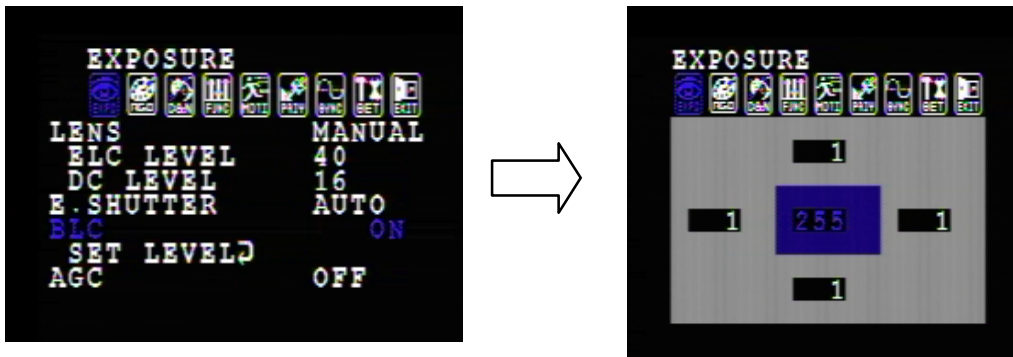1/2000s,1/4000s,1/10000s,1/100000s)

■ CAMERA OPERATION

EXPOSURE - BLC (Back Light Compensation)
When there is a strong backlight in the scene, change BLC in order
to get a uniform image.

By selecting "BLC ON", BLC activity area and level are adjustable in 5
sections (TOP / DOWN / CENTER / RIGHT / LEFT). Increase the level in
areas desired to become brighter for compensation.

■ CAMERA OPERATION

EXPOSURE - AGC (Auto Gain Control)
This function is designed to automatically adjust video gain to
enhance the picture in darker scenes.
AGC is adjustable within OFF - 36dB.

■ CAMERA OPERATION

COLOR - WHITE BALANCE CONTROL
Screen color is adjustable in accordance with the type of ambient light on scene.

AWC : Use this for color temperatures below 2500°C and over 9500°C (indoors)
ATW : Use this for color temperatures between 2500°C and 9500 °C (outdoors)
Manual : The white balance is manually controlled.
PUSH LOCK : If PUSH LOCK is selected, the white balance adjusts automatically for the current light on scene.

■ CAMERA OPERATION

Manual : Adjust RED or BLUE in accordance with the type of ambient light on scene.

■ CAMERA OPERATION

COLOR - GAIN CONTROL
Select the desired gain value. The higher the gain level, the more the scene displays that color.
R-Y GAIN : Adjustment of RED color
B-Y GAIN : Adjustment of Blue color

■ CAMERA OPERATION

DAY & NIGHT (AUTO / COLOR / B/W)
This function determines how day and night modes are handled.

AUTO : The camera automatically switches between day and night mode depending on the light level.
COLOR : The camera stays in day mode.
B/W : The camera stays in night mode.

BURST SIGNAL : If ON, the screen shows a color burst while switching to day mode from night mode.
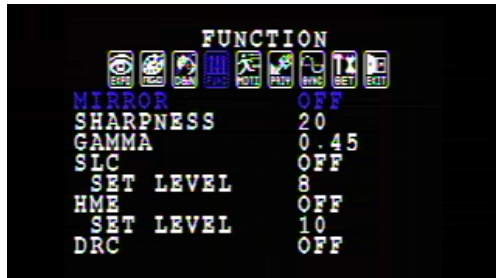SET LEVEL : Not adjustable.
READ TIME : The switching time delay in AUTO mode for when the scene suddenly gets darker or brighter, adjustable from 3 secs to 12 secs.

■ CAMERA OPERATION

FUNCTION - MIRROR
If ON is selected, the horizontal image on the screen is reversed.

FUNCTION - SHARPNESS
The image sharpness is adjustable.

■ CAMERA OPERATION

FUNCTION - GAMMA
GAMMA LEVEL is selectable in 3 levels. 0.45, 0.6, 1.0.

FUNCTION - SLC (SIDE LIGHT COMPENSATION)
Select this mode when the corner of the screen is darker than the center.
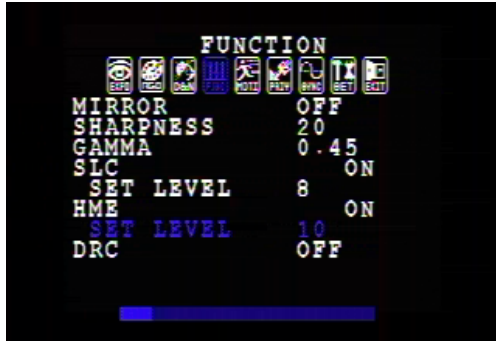As the level increases, the image becomes brighter.

■ CAMERA OPERATION

FUNCTION - HME (High Light Masking Exposure)
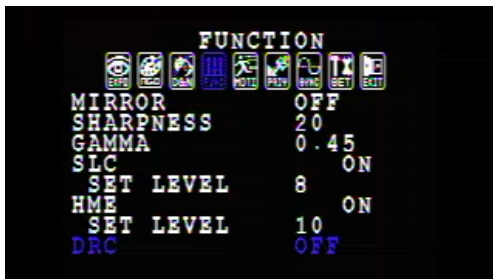This function masks the bright areas on the screen.

The brightness of HME is adjustable.
As the level of HME is increased, the masking area increases.

FUNCTION - DRC (Dynamic Range Compensation)
This function is to compensate darker images when different exposures are in one scene.
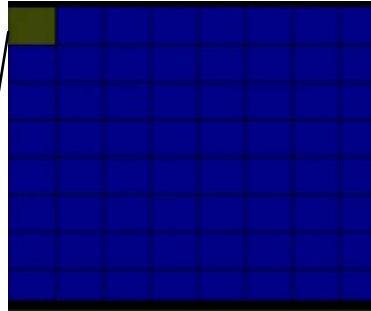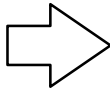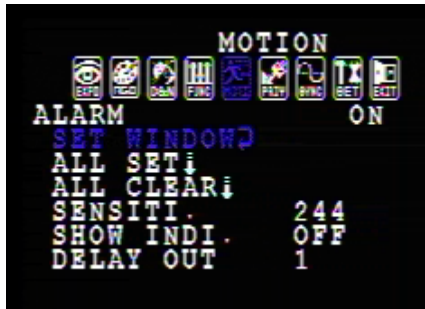
■ CAMERA OPERATION

MOTION DETECTION

This camera feature allows you to detect the movement of an object in 64 different areas of the screen, and display an alarm on the screen.

Select or deselect blue areas with the joystick, only the blue areas are monitored for movement.

ALL SET : Set entire screen for movement detection.
ALL CLEAR : Clear entire screen for movement detection.

ALL SET

ALL CLEAR

■ CAMERA OPERATION

Sensitivity level : As the sensitivity level increases, smaller movements are detected.
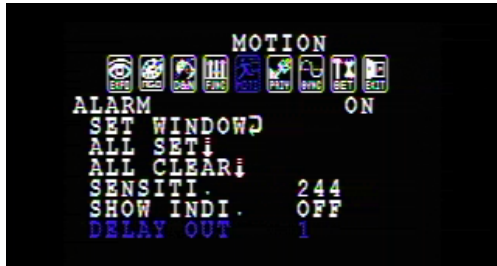

SHOW INDI : The motion detected indicator can be selected as icon, trace or off.

■ CAMERA OPERATION

DELAY OUT : The alarm signal display on the screen is delayed from 1sec to 15 sec.

■ CAMERA OPERATION
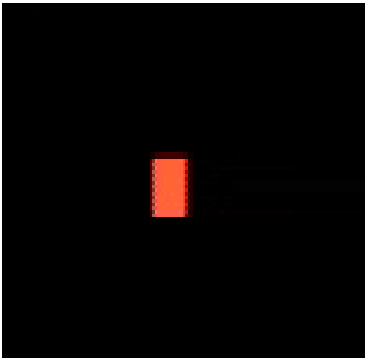
PRIVACY (PRIVACY MASKING ZONE)
This function sets certain areas of the screen to be hidden. 4
masking zones are available.

MASK 1 : Adjust the masking area by using the joystick.
MASK 2 : Adjust the masking area by using the joystick.
MASK 3 : Adjust the masking area by using the joystick.
MASK 4 : Adjust the masking area by using the joystick.

If "set window" is selected, the cell is displayed
on the screen and then adjusted by moving the
joystick UP / DOWN / RIGHT / LEFT. Once
desired area is covered press the joystick in until
mask area is black then move the joystick any
direction to return to the previous screen.

■ CAMERA OPERATION

PRIVACY - COLOR SET
This function is to select the color of the masking cells.

■ CAMERA OPERATION

SET UP - CAMERA ID
Enter a camera ID as a unique identifier.

■ CAMERA OPERATION

SET UP - TITLE DISPLAY
Camera title is displayed on the screen when a value is entered.

TITLE EDIT : Select the value
TITLE RESET : Clears the title.
TITLE POSITION SELECTION : Set area to display title.

If editing the title, this image is displayed, select desired characters by using the joystick.
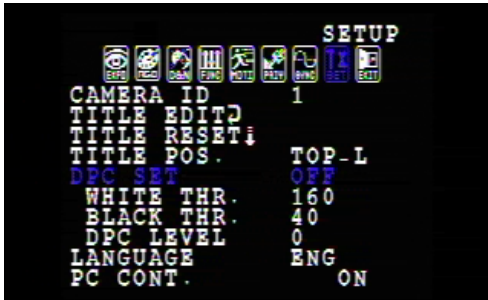
■ CAMERA OPERATION

SET UP - DPC SET (Defect Pixel Cancellation)
This function automatically removes dead pixels in real time.

WHITE THR. : For cancelling the white defective pixels.
BLACK THR. : For cancelling the black defective pixels.

The cancellation sensitivity of defect pixels is adjustable.
For adjusting white defective pixel sensitivity, set WHITE THR. and
DPC LEVEL at the same time.
For adjusting black defect pixel, set BLACK THR and DPC LEVEL
at the same time.

■ CAMERA OPERATION

SET UP - LANGUAGE
The language of the OSD menu is selectable to either English
or Chinese.

■ CAMERA OPERATION

SET UP - PC CONT.
PC communication is available by setting PC CONT. "ON" (not supported)

■ CAMERA OPERATION

 EXIT

EXIT : Exit the OSD menu.
SAVE & EXIT : Exit the OSD menu after saving the current setting.
FACTORY SET : Change setting to the factory default. (make sure to SAVE & EXIT after)

NOTE : Lens, Day & Night and ID/Title settings stay the same even after a FACTORY SET.

SPECIFICATIONS

MODEL	WZ45N (all models)	
General Spec	NTSC	PAL
CCD Type	1/3" 410K Pixels Color	1/3" 470k Pixels Color
Total number of pixels	811(H) X 508 (V)	795(H) X 596(V)
Min illumination	0.1Lux [(F1.2, 30IRE), (at COLOR)]	
	0.001Lux [(F1.2, 30IRE), (at TDN(B/W)]	
Resolution	520 TV Lines [at COLOR]	
	580 TV Lines [at TDN(B/W)]	
Electric Spec		
Voltage	DC 12V (10V ~ 16V) AC 24V (20V ~ 28V)	
Power Consumption	LED ON = DC : Max 4.3 [W] AC : Max 4.3 [W]	
COMMON		
General Spec	NTSC	PAL
Shutter speed	1/60s - 1/100,000s	1/50s - 1/100,000s
S/N Ratio	50dB or more(AGC off)	
Gamma	0.45	
Sync System	Internal / External	
Mechanical Spec		
Operation temp	-30℃ ~ +55℃	
In storage temp	-30℃ ~ +70℃	
Operation humidity	Under 90% (Non-condensing)	

Americas
Bosch Security Systems, Inc.
850 Greenfield Road
Lancaster, Pennsylvania 17601
USA
Telephone+1 888-289-0096
Fax +1 585-223-9180
Email: security.sales@us.bosch.com
www.boschsecurity.us

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven,
The Netherlands
Phone: + 31 40 2577 284
Fax: +31 40 2577 330
emea.securitysystems@bosch.com
www.boschsecurity.com

Asia-Pacific:
Bosch Security Systems Pte Ltd
38C Jalan Pemimpin
Singapore 577180
Phone: +65 6319 3450
Fax: +65 6319 3499
apr.securitysystems@bosch.com
www.boschsecurity.com